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Computers and Special Ed

A newsletter for Massachusetts special educators published by the Bureau of Program Development and Evaluation, Division of Special Education, Massachusetts Department of Education.

January/February 1988

CHELMSFORD INTEGRATED EFFORT PUTS BYTE INTO NEWS

Parker School Students Produce Newspaper Using Computers

by Donna Haines, Stella Guptill, Linda Nichols and Calista Coady

The Parker School Special Education Cluster in Chelmsford is a team of regular and special education teachers, specialists, and aides working together with special needs students to provide quality education through an integrated and cooperative effort.

This past year (1986-1987) the staff of the Special Education Cluster at the Parker School in Chelmsford developed an integrated language/social studies/science program for the children in the resource classes.

At the heart of the program was a written language component using computers. The activities were designed to help students learn to express their ideas through written language and become computer literate. Students wrote as reporters for a class newspaper.

The computer was used in the writing process from the beginning. Students read written drafts of their stories to a teacher who entered the stories into the computer. The student and teacher then edited the stories using the computer.

As students developed proficiency on the computer keyboard, they entered, composed, and edited their own articles. Through this approach to writing, students were able to increase their output and accuracy. They also gained skills in following written directions and working cooperatively on a group project.

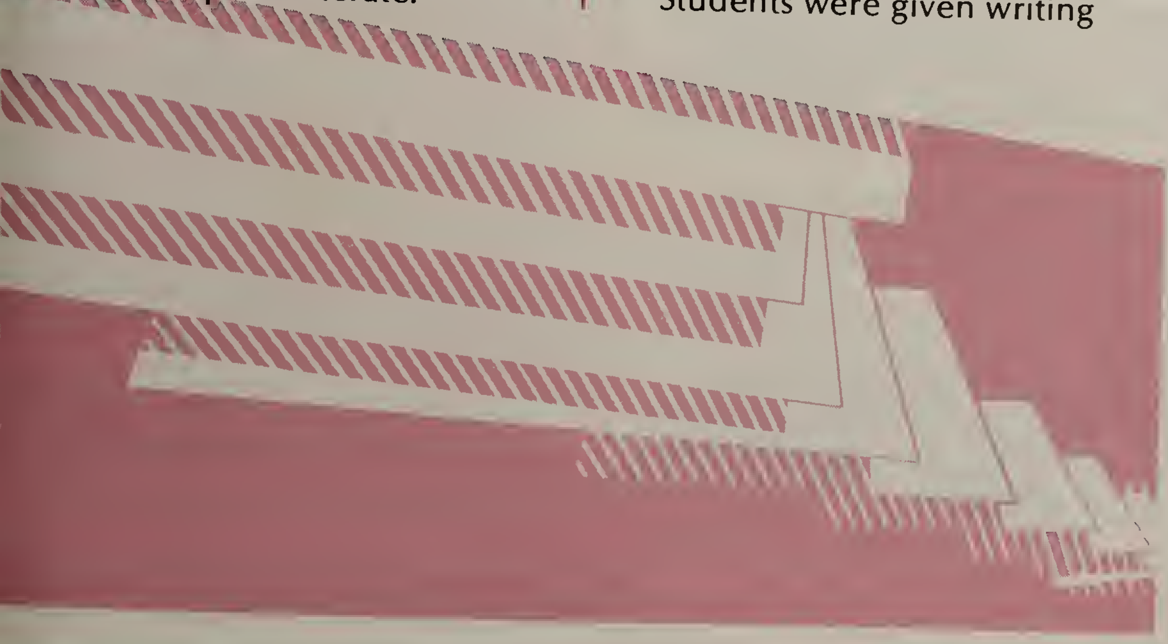
Students were given writing assignments and deadlines to meet. Student reporters wrote articles, edited them and entered them into the computer.

The final product was a newspaper titled *The Cluster Chatterbox.*

The paper included stories on class trips, editorials on a variety of student concerns including Red Sox pitcher Roger Clemens, health and living stories, arts, entertainment, business, sports, and even an advice column and horoscope, all written by students using computers.

The paper generated school-wide interest, and was presented at the school curriculum fair in June 1987. ☐

Donna Haines, Stella Guptill, Linda Nichols and Calista Coady work at the Parker School in Chelmsford.



INSIDE:

- MCET Proposals Wanted
- IEP Computer Programs
- Teacher Survey on Computers
- Computer Periodical List

TEACHER SURVEY IN METHUEN IDENTIFIES EFFECTIVE USE OF COMPUTERS

Many Effective Computer Uses Identified

By Marilyn Delano & Molly Leonard

A recent survey of Methuen special education teachers helped identify the ways teachers are using computers with their students and what teachers see as computer priorities. Eighteen teachers were surveyed and a majority indicated they were using computers with small groups and individual students.

A few teachers were using computers to foster creative writing skills while other language arts skills being addressed were alphabetizing and spelling.

Some teachers are currently using computers as a behavior management tool by scheduling computer time for students as a reward for work done well or for maintaining appropriate classroom behavior.

At the present time, approximately half of the special education teaching staff is using computers for data management. This includes IEP development, generation of progress reports, data management, and word-processing.

The survey also showed that one of the computer priorities for the 1987-1988 school year included using computers to improve written language and to enhance the overall reading performance of students. In connection with this, teachers requested opportunities and time to preview new computer software.

Computer adaptive devices currently being used by Methuen teachers include the Muppet Keyboard and accompanying software, the Touch-Window and Tool Kit, and the Echo II Talk-Back voice synthesizer.

Teachers surveyed felt that additional equipment and programs would be beneficial and would enhance their student's progress.

Teachers indicated that IEP development and managment of paperwork were areas that needed to be addressed. □

Marilyn Delano & Molly Leonard teach special needs students in Methuen

SPECIAL EDUCATION PERIODICALS AVAILABLE

News You Can Use

The following list of Special Education Technology Periodicals has been provided by THE CENTER FOR SPECIAL EDUCATION TECHNOLOGY 1920 ASSOCIATION DRIVE, RESTON, VA 22091. You are encouraged to write or call publishers directly to obtain copies or contact the Center at 1-800-345-TECH for more information.

AUGMENTATIVE AND ALTERNATIVE COMMUNICATION
INTERNATIONAL SOCIETY FOR AUGMENTATIVE AND ALTERNATIVE COMMUNICATION
WILLAMS AND WILKINS
428 EAST PRESTON STREET
BALTIMORE, MD 21202

PUBLISHED QUARTERLY
SUBSCRIPTION—$30.00

This journal is designed for speech-language specialists and special educators with an interest in communication disorders. It concentrates primarily on nonverbal communication.

CLOSING THE GAP
P.O. BOX 68
HENDERSON, MN 56044

PUBLISHED BIMONTHLY
SUBSCRIPTION—$18.00

This newspaper is dedicated to exploring the uses of computers with the handicapped and special education students.

COMMUNICATION OUTLOOK
ARTIFICIAL LANGUAGE LABORATORY
405 COMPUTER CENTER
MICHIGAN STATE UNIVERSITY
EAST LANSING, MI 48824

PUBLISHED QUARTERLY
SUBSCRIPTION—$12.00

This newsletter is intended for people who are interested in the application of technology to the needs of individuals who experience communication handicaps due to neurological or neuromuscular conditions.

COMPUTER DISABILITY NEWS
C/O THE NATIONAL EASTER SEAL SOCIETY
2023 WEST IGDEB AVENUE
CHICAGO,IL 60612

PUBLISHED QUARTERLY
SUBSCRIPTION—FREE

This quarterly publication is a resource for people with disabilities. It promotes computer technology and information for individuals experiencing handicaps. Regular features include a review on books and journals, upcoming conference,featured products and computer courses for rehabilitation facility managers.

continued

CURRENT D:ATA
D:ATA INSTITUTE
4407 EIGHTH STREET, NE
WASHINGTON, DC 20017

PUBLISHED QUARTERLY
SUBSCRIPTION—FREE

This publication disseminates information about programs, publications and conferences in the area of rehabilitation and special education technology. Specifically, the quarterly newsletter features updates on topical programs funded by the Office of Special Education and Rehabilitative Services.

THE JOURNAL FOR COMPUTER USERS IN SPEECH AND HEARING
CUSH SCHOOL OF HEARING
AND SPEECH SCIENCE
OHIO UNIVERSITY
ATHENS, OH 45701

PUBLISHED 2 TIMES/YEAR
SUBSCRIPTION—$10.00

Articles in this journal deal with the general area of computers and their applications to the diagnosis, treatment and delivery of services to individuals experiencing communicative handicaps. Hardware and software reviews, public domain programs and other professional materials of interest to computer users in speech and hearing are included.

JOURNAL OF SPECIAL EDUCATION TECHNOLOGY
EXCEPTIONAL CHILD CENTER
UTAH STATE UNIVERSITY
UMC 6805, DCHP
LOGAN, UT 84322

PUBLISHED QUARTERLY
SUBSCRIPTION WITH
MEMBERSHIP—$17.00

The purpose of this journal is to provide information, research findings and reports of innovative practices in the area of educational technology and exceptional children.

LIAISON BULLETIN
NATIONAL STATE DIRECTORS OF
SPECIAL EDUCATION
1201 SIXTEENTH STREET, NW
SUITE 404E
WASHINGTON, DC 20036

PUBLISHED MONTHLY
SUBSCRIPTION—$40.00

This bulletin provides special education information primarily for special education administrators. It regularly includes a section on technology as well as sections on resources for special educators and information and updates on legislation.

LINK AND GO
DOPH-2
2030 IRVING PARK
CHICAGO, IL 60618

SUBSCRIPTION INCLUDED WITH
MEMBERSHIP

This is a quarterly newsletter providing an information exchange for people interested in how personal computers can be used by the handicapped.

LSPI NEWS
LIBRARY SERVICES FOR THE
PHYSICALLY IMPAIRED
FOUNDERS MEMORIAL LIBRARY
NORTHERN ILLINOIS UNIVERSITY
DEKALB, IL 60115

PUBLISHED QUARTERLY
SUBSCRIPTION—FREE

This newsletter includes information on new technology, organizations for physically impaired individuals and book reviews.

RAISED DOT COMPUTERS
408 SOUTH BALDWIN
MADISON, WI 53703

PUBLISHED MONTHLY
SUBSCRIPTION—$18.00

This newsletter provides reviews of hardware and software appropriate for visually impaired microcomputer users.

RE: ABLE
P.O. BOX 384
BELLFLOWER, CA 90706

PUBLISHED BIMONTHLY
SUBSCRIPTION—$18.00

This newsletter's focus is specifically related to computers and their benefit to the disabled. It offers evaluation of hardware, software, computer products, books and resources, and reports advances in computer equipment and application.

SENSORY AIDS TECHNOLOGY UPDATE
SENSORY AIDS FOUNDATION
399 SHERMAN AVENUE
PALO ALTO, CA 94306

PUBLISHED MONTHLY
SUBSCRIPTION—$37.00

This newsletter focuses on applying technology to assist disabled people in competitive employment. It has articles on technology, education, and new publications.

THE SLOANE REPORT
P.O. BOX 56189
MIAMI, FL 33256

PUBLISHED BIMONTHLY
SUBSCRIPTION—$36.00
(also available on cassette)

This newsletter has reports on new products, funding sources, consumer tips and recent developments in the computer industry related to special education.

COMPUTER PROGRAMS FOR YOUR INDIVIDUALIZED EDUCATIONAL PLAN (IEP)

What to Look For and Places to Look

by Pam Chomsky-Higgins and Karen Quinlan

- Are you spending too much time writing individualized educational plans and not enough time working with students?
- Are you tired of waiting weeks for educational plans to be typed?
- Are you looking for some relief from ever increasing paperwork?

If the answer is yes to any or all of these questions then maybe it's time you shopped around for a computerized Individualized Educational Plan (IEP) program.

There are currently many IEP programs in the marketplace and more being developed. But before you buy, you need to determine which program best suits your needs and the needs of your school system.

Some program aspects you should consider before purchasing a computerized IEP program include:

- **Program Components**
  Determine whether the program will produce more than a printed copy of the IEP. Some programs are able to store a considerable amount of data for use with various special needs personnel. Information may include class lists, report cards, schedules, and progress reports. See if the program has the capacity to do these extra tasks, and determine if your school district would find it beneficial.

- **Program Efficiency**
  Determine if teachers and other special needs personnel will be able to produce IEPs faster with the program. Evaluate whether computer hardware and software will actually cut down on required paperwork. Talk with other people using the computerized IEP software you are considering.

- **Program Ease**
  Determine how much training will be needed to get the program online in your school system.

- **Program Flexibility**
  Determine if you are able to update an IEP without rewriting the entire plan. Determine whether you are able to add new functions easily.

- **Program Compatibility**
  Determine how many computers are available and how many more would have to be purchased to achieve the maximum benefits of the program.

- **Program Cost**
  Determine what items are included in the purchase price of the program. Items to look for are: number of disks, back-up disks, training manual (is it easy to read and helpful?), cost and availability of training, and back-up assistance.

- **Document Format**
  Determine if the final document produced by the program is easily understood by both special needs personnel and parents.

The following is a list of companies that have developed Computerized IEP Programs that you may want to review. Prices and capabilities of these programs vary.

Southern Micro Systems
P.O. Box 2097
Burlington, NC 27216-2097
(919) 226-7610

Insight Unlimited
3600 E. Memorial Dr. #3
Muncie, IN 47302
(317) 747-1015

Learning Systems
3 Peter Circle
P.O. Box 15
Marblehead, MA 01945
(617) 631-8968

Learning Tools
686 Massachusetts Ave.
Cambridge, MA 02139
(617) 864-8086

Screening & Tracking
Corp. of America
20 Kent St.
Brookline, MA 02146
(617) 738-5600

Turnkey Systems
256 N. Washington St.
Falls Church, VA 23046-45
(703) 536-2310

MASBO Cooperative Corporation
99 School St.
Weston, MA 02193
(617) 647-5500 ☐

Pam Chomsky-Higgins is a special needs teacher in Reading and Karen Quinlan is a special needs teacher in Amesbury

PROPOSALS FOR TELECOMMUNICATION PROJECTS WANTED

Boston Group Will Co-sponsor Educational Demonstration Projects

Massachusetts educational institutions, school systems, and other organizations with educational mandates are encouraged to apply to The Massachusetts Corporation for Educational Telecommunications (MCET) in Boston for co-sponsorship of telecommunication demonstration projects.

The projects must demonstrate educational applications of telecommunications and can include, but are not limited to, interactive teleconferencing, telecourses, and data services.

MCET will subsidize 75% of the project transmission costs, broker telecommunications capacity, production facilities and remote site facilities, and will also provide technical and planning assistance throughout the duration of the project. Applicants should be prepared to commit financial and personnel resources to the proposed project. Applicants will also be asked to demonstrate how the success of their project will be determined, and how it will be repeated or expanded in the future.

In the past MCET has co-sponsored projects such as in-service training for teachers, continuing education for health care professionals, computer bulletin board and message services for teachers and parents.

MCET is a public corporation established by the Commonwealth of Massachusetts to develop a telecommunications network to enhance the state's educational and economic environment.

For more information contact Linda DiRocco at MCET at (617) 439-5888. □

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1385 Hancock St., Quincy, MA 02169
Telephone (617) 770-7500

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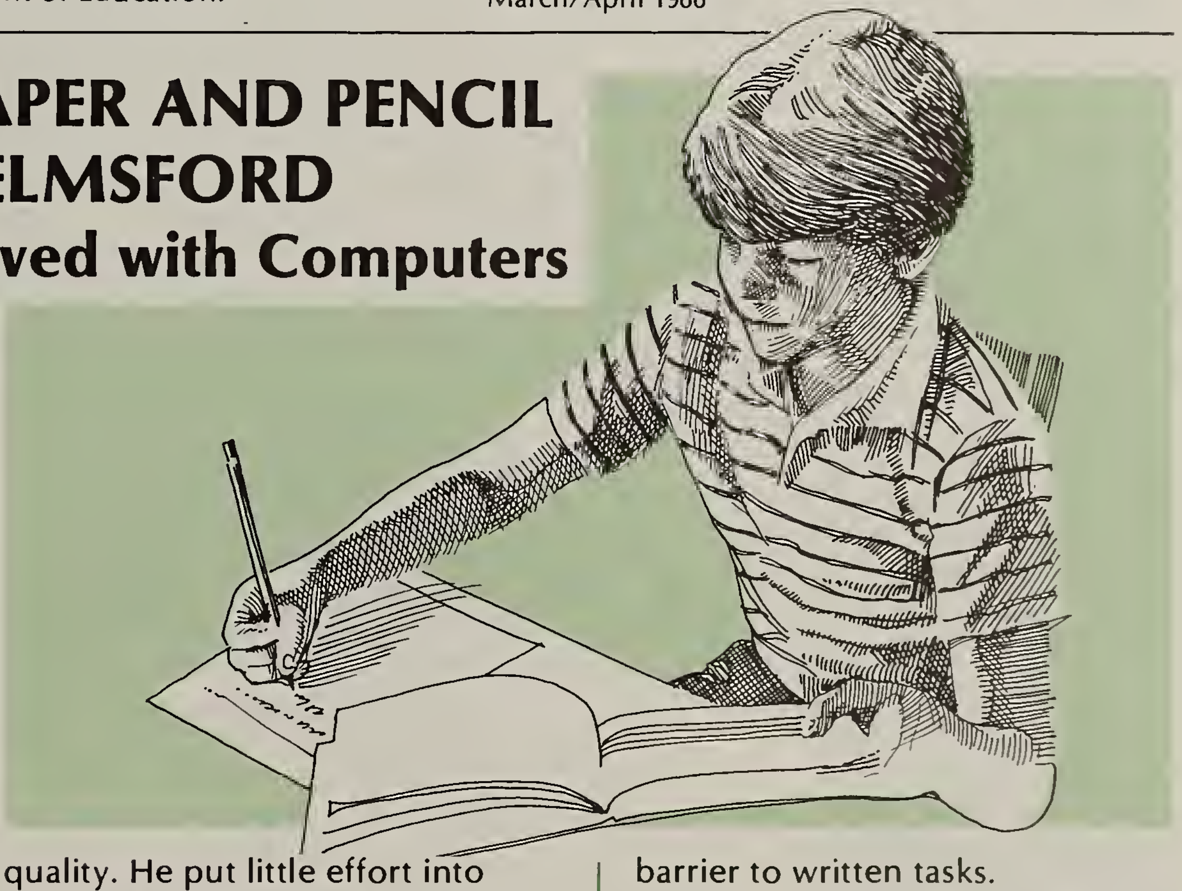
A newsletter for Massachusetts special educators published by the Bureau of Program Development and Evaluation, Division of Special Education, Massachusetts Department of Education. March/April 1988

REMOVING THE PAPER AND PENCIL BLOCKADE IN CHELMSFORD

Language Skills Improved with Computers

by Delores Kricker



Special education students who have difficulty with written tasks because of poor handwriting, poor spelling, or organizational weaknesses can benefit from word processing.

Word processing is more exciting for students and it eliminates the boring physical and mental drudgery of using a pencil and paper.

For students who have difficulty spelling, word processing software often includes a spell check component that allows students to quickly and easily check the spelling.

All of this provides a boost to the student's self confidence and greater degree of motivation.

The story of John is a case study of how word processing can be used as an effective classroom tool.

John is a very bright, articulate fourth grade youngster who has very weak motor control and coordination problems. He was instructed in the cursive script in the Learning Center in grade two because his printing skills were so weak. Classroom modifications were developed to limit the amount of written work assigned to him, and he was given extra time for written assignments.

However, John's writing and school work were generally of poor quality. He put little effort into written assignments, resulting in low grades. A large discrepancy between John's verbal skills and his written skills was evident. Low self-esteem related to his academic performance was beginning to result in social problems between peers and created discipline problems at home.

John was then taught word processing skills as an option to writing assignments. He learned the basic functions quickly. Although he had poor fine motor skills with a pencil, he used a hunt and peck method of keyboarding which was very quick and effective.

Soon John was writing and printing written reports independently and began using his time in the Learning Center to complete classroom assignments on the computer.

His pride in this accomplishment appeared to lift a psychological barrier to written tasks.

He was placed on a monitoring program and allowed to use the computer in the Learning Center for written assignments, as necessary. He was able to function successfully in the classroom, completing his written work through a combination of word processing for lengthy reports and regular handwriting for shorter reports.

Both report card grades and motivation improved significantly and John no longer uses the Learning Center for support services.

INSIDE:

- COMPUTER INSTITUTE
- SOFTWARE REVIEW
- MULTIMEDIA PACKAGE

MARBLEHEAD TEACHERS LOOK AT SOFTWARE
What and How We Teach With Computers

by Sheryll Harkins and Jo-Anne Murphy

Microcomputers and software programs can provide teachers and students with exciting and innovative learning opportunities.

For teachers or administrators wishing to justify increased usage of computers in the classroom or to advocate for more computers, the following list of advantages may be of assistance.

— Computers are "user friendly": students can make mistakes in a non-threatening environment.
— The computer can give the student its undivided attention.
— Students can work and set their own pace.
— Reinforcement of student responses is immediate.
— Computers can provide continuous and positive feedback and praise, giving students a higher sense of self-esteem.
— Drill and practice can be exciting through the use of animation, sound effects, and game playing.
— Computers can simulate real life experiences for students and allow them to make decisions and see the consequences.
— A computer has infinite patience: it does not respond on an emotional level, and does not mind repeating itself.
— A computer can use a multi-sensory approach to learning, including the use of video tapes, voice synthesizers, etc.
— The computer can provide mathematical and/or linguistic models for students to work with.
— The computer can require type-in responses. This helps reinforce spelling skills.
— The computer is very appealing to the language impaired student and can be used to facilitate language development.
— Computers can provide diagnostic and prescriptive information to teachers.
— Computers can be used to store student records, assessment scores, and record student objectives and IEP's.
— Computers can free teachers from hours of repetitious paper and pencil activities.

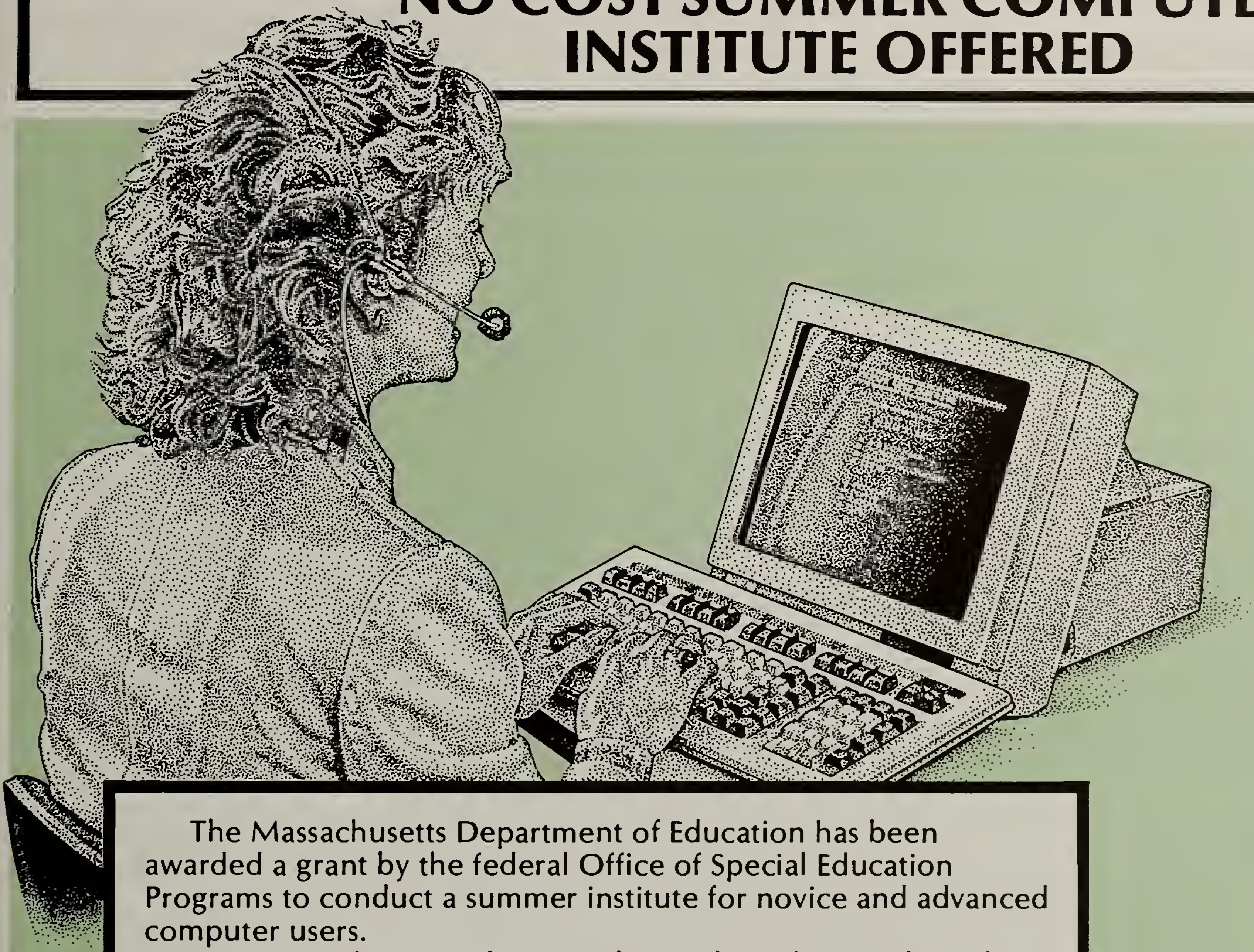
Another important consideration that teachers and administrators may wish to learn more about is the ability to select appropriate software to meet the needs of special needs students.

Software is a critical component for a successful computer learning experience. Some guidelines to consider when selecting computer software include:

— Software programs should be individualized and provide immediate and frequent feedback to students.
— It should present a comprehensive curriculum organized into a hierarchy of skills.
— Progress should be measured by mastery of performance objectives.
— Diagnostic and prescriptives strategies should be used to place the learner appropriately in the program.
— A multi-sensory format should be employed.
— The level of program difficulty should be individually tailored for each child.
— The display format should be easily readable.
— The answer format should be as simple as possible.
— Problem solving should be self-paced with no time constraints in answering.
— Motivational aspects should be incorporated into the software program.

Sheryll Harkins is a resource teacher and Joanne Murphy is a special education teacher in Marblehead.

NO COST SUMMER COMPUTER INSTITUTE OFFERED



The Massachusetts Department of Education has been awarded a grant by the federal Office of Special Education Programs to conduct a summer institute for novice and advanced computer users.

Any Massachusetts educator who works with special needs students and has an interest in computers can apply to attend the institute.

This institute, which is offered at no cost to the participants, will be held the last two weeks in July 1988 at North Adams State College, North Adams, Massachusetts and will consist of an intensive study on the use of word processing, adaptive devices, telecommunications and problem solving for special needs students.

There will be five follow-up sessions held during the 1988-1989 school year.

Participants will share information learned at the two week Institute in July, by giving workshops within their own school districts.

The grants for participants includes housing costs and the loan of some equipment and software.

Applications for the July Institute will be sent to all Special Education Directors and Superintendent's of schools.

You may request a copy of the application forms from these administrators or contact Joan Thormann, Division of Special Education, 1385 Hancock Street, Quincy, MA 02169, (617) 770-7482.

PLEASE POST

READINGS ON LEARNING DISABLED SOFTWARE

Selecting and Using Computer Software

The following list of Special Education periodicals has been provided by The Center for Special Education Technology, 1920 Association Drive, Reston, VA22091. Readers are encouraged to write or call (1-800-345-TECH) the Center for more information on these and other important publications.

CLOSING THE GAP,
Vol. 4 (1985)
The Great LD Software Search, M. Furst
This article provides insights on the characteristics of good software for children who are learning disabled.

CLOSING THE GAP,
Vol. 3 (1985)
Let's Look at it Another Way, M. Furst
The author describes how she taught children to design social issues programs for the computer.

CLOSING THE GAP,
Vol. 3 (1984)
Enabling Learning Disabled Children to Become Facilitators of Learning, M. Furst
The author explains how her learning disabled and emotionally disturbed students (grades 3-8) designed programs in reading, math, science and a host of other areas.

COMPUTERS IN THE SCHOOLS, Vol. 1 (1984)
Computer Courseware for the Deaf and Learning Disabled, C. Garhart and K. Smith
The authors provide examples of effective applications of both exploratory and programmed courseware for children who are deaf and emotionally disturbed.

TEACHING AND COMPUTERS, Vol. 2 (1985)
Learning Disabilities Guide, L. Rotenberg
The guide describes computer activities and resources for teaching children with learning disabilities.

THE CATALYST, Vol. 1 (1982)
Classifying and Locating Special Education Software, D.T. Uslan
The author provides a framework for classifying and locating special education software, including the names of various producers of special education software.

MICROCOMPUTERS IN THE CLASSROOM,
(1984)
Professional Press, Inc., G. Senf
This guide describes computer activities and resources for teaching children with learning disabilities.

HAVE YOU SENT US THIS FORM?

If you are interested in receiving a copy of this newsletter on a regular basis, and have not already returned this form, please fill it out and mail the form to Joan Thormann, Division of Special Education, 1385 Hancock St., Quincy, MA 02169

Name   Position or Title

School   Address

City, State, Zip   Telephone

Type of classroom or program ______

Total number students you serve ______   Number of students using computers ______

Brand(s) of computer(s) ______

Where is (are) the computer(s) located? ______

What software programs do your students use most frequently?

______

What is your evaluation of this issue of the newsletter?

Yes	No		Yes	No	
___	___	Useful	___	___	Looks good
___	___	Interesting	___	___	I like the name
___	___	Too elementary	___	___	Longer articles
___	___	Over my head	___	___	Shorter articles

Would you be willing to contribute information and/or articles for future issues of this newsletter ___ yes ___ no

ESSEX STUDENTS GO ON LEARNING VOYAGE

A Whale of a Multimedia Package

by Chris Pike

THAR SHE BLOWS! If you've been trapped in the classroom too long and would welcome a chance to board a whaling vessel, The Voyage of the Mimi, a multimedia package from Holt, Rinehart and Winston, might be the answer.

The multimedia package is a modern day whaling expedition dedicated to the study of whales off the New England coast.

The Voyage of the Mimi software program provides support in language and problem solving skill development in a challenging and varied program that can supplement classroom curriculum.

The software activities enhance the lessons conducted in class and set the stage for additional language, visual motor, and problem solving tasks. These tasks can be carried out in the resource room setting and can be tailored to the needs of special needs students.

The Whale Search program provides reinforcement for beginning Logo programmers, incorporating the skills of problem solving, and spatial and numerical estimating. It requires students to use left, right, forward and back commands to free a whale caught in a net.

For students who are still at the drawing level, it provides countless opportunities to practice estimating distance and angles. The Whale Search has to be conducted in as few moves as possible, with the computer keeping track of the number of moves. This encourages planning and programming efficiency.

The program uses some sea-faring vocabulary such as lobtailing, flukes, navigate and run aground. The use of this vocabulary provides the resource room teacher with a chance to preview concepts and language that would be useful if the students are studying fishing in their regular classroom. ☐

Christine Pike is a special education teacher in Essex.

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April/May 1988

IPSWICH AUTHOR APPLE OF TEACHER'S EYE

Student Author Blossoms Using Computers.

by Judy LeFave-Ferrara

A talented author has emerged from my resource room because of Appleworks word processing.

For the purpose of confidentiality I will call the student Billy. Billy is an enchanting ten year old youngster with certain physical handicaps. He is mobile and has very good verbal communication skills. His vision is poor and he requires large print books and uses a slantboard for his writing.

Billy is presently enrolled in a regular third grade classroom with resource room instruction for his core academics. Paper and pencil tasks are extremely slow and tedious for him.

When I was assigned Billy, I had teacher—anxiety over how to prioritize my goals with him. Billy was basically a non-reader and his writing was often illegible. However, as each day passed, I felt a strong sense of Billy's desire and zeal to compose his own stories.

At first, Billy would dictate his creative thoughts and I would write them down on large newsprint. When we displayed "our" stories on the bulletin board, he would beam with pride. His stories are marvelous and full of detail and character. As each new story was created, a hidden author began to emerge right before my eyes.

As the year progressed, Billy expressed the need to be the sole author, writer, typist, editor and printer for his creations. Keeping in mind Billy's poor vision, we utilize the large pitch print option and the triple space feature. Billy thrives on the opportunity to print several copies of his work to share with his "fans".

The writing process is an on-going learning activity for Billy. A week does not go by without a new, hot-off-the-press story. Typing has now been incorporated into his educational plan and marked improvements have been noted in his speed and accuracy.

Billy's adventures into the world of writing have had a positive influence on his reading skills. He is currently reading at an early second grade level and really enjoys reading, especially his own stories.

Appleworks word processing has unlocked the writing door for Billy. Its simple, easy-to-understand commands are a dream-come-true for a handicapped youngster. This tool has allowed Billy the opportunity to share with the world, all the wonderful stories he so desperately has wanted to "write".

Judy LeFave-Ferrara is a resource room teacher in Ipswich ☐

INSIDE:

- **APPLEFEST**
- **LEGO SOFTWARE**
- **COMMUNICATION CLINIC**

METHUEN USES COMPUTER BUILDING BLOCKS
Learning With the Lego Software Program

by Molly J. Leonard

Do you need an interesting and innovative way to renew interest in science, math, and problem solving for your learning disabled and resource room students?

Do you believe your students learn best through use of manipulatives and hands-on activities?

Are you interested in cooperative learning for your students?

Would you like to see your special needs students experience success in a science class?

If your answer is "yes" to all of these questions, perhaps LEGO TC logo is for your school.

The LEGO TC logo program centers around the building of machines with the LEGO bricks, motors, lights and sensors. Students can then control and operate the machines by using logo software.

No prior knowledge of LEGO or logo is necessary. Students begin by following specific activity cards to construct various types of machines. The activity cards are strictly visual and do not require any reading.

In the next step, the students follows project directions outlined in the program booklets.

The final and ultimate task is for students to create their own machines and program directions into the computer. An example of a simple creative project might be for the student to build a machine that will move forward and backward on command. Many other types of machines can be built and programmed by the student.

If the student's machine doesn't work, the student must go back and redesign or change the program.

If the machine works, the student could be required to write a report detailing every step of production.

This activity gives the student the thrill of building something and seeing it work.

More information concerning this program and teaching with LEGO TC logo can be obtained from LEGO Educational Divison, LEGO Systems, Inc., 555 Taylor Road, Enfield, CT, 06082.

Molly J. Leonard is a special education teacher in Methuen.

CHILDREN'S HOSPITAL SPONSORS COMMUNICATION CLINIC
Computer Evaluation and Instruction Provided

The Communication Enhancement Clinic at The Children's Hospital, Boston, is an interdisciplinary clinic dedicated to providing augmentative communication services to children and adults with cerebral palsy, mental retardation, spinal cord injuries, neuro-muscular diseases, blindness, and other disabilities that render them severely speech and/or writing impaired.

Communication approaches that may be prescribed include electronic devices, such as computers having synthetic speech output, and non-electronic devices, such as communication boards, sign language, or gestural systems.

The staff recommends the most appropriate communication system after a thorough assessment of an individual's cognitive, motor, language, and speaking abilities, and a determination of his or her communication, education, and/or vocational needs.

For persons who can speak distinctly but experience conditions that limit their motor skills, the clinic offers a program in voice-command computer control.

The clinic evaluates a person's ability to control the computer by voice command and then identifies appropriate software to meet his or her specific educational and vocational needs.

The clinic also provides computer evaluation and instruction for people with a variety of learning problems, including difficulty with reading, writing, spelling, math, or memory. It is staffed by educators, speech/language pathologists, and computer specialists.

An extensive selection of commerical software and hardware is available, in addition to software programs designed by clinic staff.

As an additional service, the clinic provides a limited number of computers through a lending program. Specifically, the computers are used on a temporary basis either to provide individuals with an opportunity to begin using a computer while seeking funding for their own equipment, or for individuals for whom a trial period is recommended before determining if computer instruction will prove beneficial.

Any inquiries about software, hardware, or the lending program should be directed to Alan Field, technical services director, (617) 735-7870.

General questions about clinic evaluations or scheduling should be directed to Deborah Peterson, clinic coordinator at, (617)-735-8391.

"CAI"IN DISGUISE IN LEOMINSTER
A Non-fiction Play

by Verna Charpentier

Setting and Time: At 8:15, the computer is turned on.
At 8:20, the first group of students enter the learning disability tutorial class.

Teacher: Hi, anyone having any problems on specific lessons that we should go over?

Kids: No, can we work on the computer?
No, can we?
No.
No.

Teacher: Well, if there's no problems. Okay.

Kids: Can we play a game?
Yeah, I don't want to do school work.
Yeah, it's boring.

Teacher: Wait a minute, does anyone have any tests tomorrow?

Kids: Yeah, but I know my geography. I studied last night.
Yeah, me too!
I have a B in geography. I don't have to study.

Teacher: Okay, let's play a game.

Kids: Great!
All right!
I like coming here. You don't make us always work.

Teacher: Could someone please boot up "Where in the World is Carmen San Diego"*. And here is a map and an almanac we can use to "cheat" and find the answers we might not know.

Kids: All right! This is awesome!

Teacher and students proceed to play the "game" and assume roles of detectives to confiscate the stolen treasures and arrest Carmen and her gang.

Kids: Hey, the criminal is in Oslo—where is that?
Oh, I know that's the capital of Norway.
It's right there on the map.

Now he's fishing in the Aegean Sea.
Oh, I know that's next to Greece.
Hurry, let's check out Athens.
Let's see.

Game continues—45 minutes fly by, the bell rings and students get ready to go to their next class.

continued on page 4

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*"Where in the World is Carmen San Diego?" is a simulation which promotes reading for meaning, researching skills, knowledge of geography and other skills.

Teacher: Good luck in your geography test on Europe.

Kids: Thanks.
Glad we didn't have to study.

Teacher smiles to herself and welcomes in the next group of students.

Teacher: Hi guys. Anyone having any problems?

Kids: No. Can we work on the computer?
I'm just having a fraction test, but I already studied.

Teacher: Okay, let's play a game on the computer.

Kids: Great a game!
Super!

Teacher: Well, could someone please boot up "Fraction Action"?

The End

Verna Charpentier is a learning disabilities teacher in Leominster.

MAY APPLEFEST AT HYNES CONVENTION CENTER

Applefest Conference and Workshops

The AppleFest Computer Conference will be held in Boston at the Hynes Convention Center on Friday, Saturday, and Sunday, May 20, 21 and 22. One day Workshops take place on May 19-21.

The conference will be held from 10am-6pm on Friday and Saturday and from 10am-4pm on Sunday.

The conference is open to the general public and advanced registration will be accepted until May 6, 1988.

Information regarding ticket prices may be obtained by contacting June Bovenzi at (617) 860-7100.

The Massachusetts Department of Education will have an exhibit booth at the conference displaying the latest in educational computer technology. Parents, educators, administrators and students are encouraged to stop by the Massachusetts Department of Education exhibit, (Booth 644).

Space for the Massachusetts Department of Education exhibit booth is being provided free of charge by AppleFest. The three day conference will have exhibits by more than one hundred and twenty companies, giveaways, raffles and hands on opportunities.

General interest topics to be covered at the conference will include home and educational software and managing home finances on an Apple computer, while the Personal Office segment of the conference will cover such topics as desktop publishing and operating a home office using the Apple computer.

Two education strands will be offered each day of the conference along with an education roundtable.

Apple and special needs students and telecommunication applications for classroom teachers will be among the many education topics discussed.

There will also be a series of special events including presentations of music and art on Apple computers and prize giveaways.

Software and hardware presentations will be offered and the Apple Hands-on Room will provide people with the opportunity to work with the Apple II and Macintosh computers.

Guest speakers scheduled for the conference include: Tom Snyder, Chairman of Tom Snyder Productions; Del Yocam, CEO of Apple Computers; Adeline Naiman, Vice-Chairperson of the Massachusetts Educational Technology Advisory Council; Steve Wozniak, co-founder of Apple Computers, and Martin Engel, Director of the Apple Classroom of Tomorrow.

ASSISTIVE DEVICE TECHNOLOGY Definitions and Terms

The following is a list of definitions and terms used with assistive device technology. The information has been provided by THE CENTER FOR SPECIAL EDUCATION TECHNOLOGY, 1920 Association Drive, Reston, VA 22091.

You are encouraged to write or call the Center at 1-800-345-TECH for more information.

A wide range of devices, aids, tools, and equipment are used by disabled people to function more efficiently.

Terms used to describe these devices and aids include assistive, adaptive, alternative, access, and augmentative. Though widely used, the definitions of these terms are not always clear or consistent. The following definitions should be useful.

ASSISTIVE DEVICE

Assistive is the broadest of the terms and is frequently used to describe the whole range of aids, tools, devices and equipment used by people with disabilities. In general, assistive devices are of two types: those that modify the conventional method with an alternative method.

For example, the conventional method of entering data into your computer is to type on the keyboard with your fingers. If you use a mouthstick to "type" on the keyboard, you are modifying the conventional method.

When it is possible to modify conventional methods to meet an individuals needs, the term adaptive device is more appropriate. When modification of the conventional method is not possible and an entirely different method is used, the term alternative is more suitable.

For people with disabilities, there are two ways of changing the conventional method of executing a task. It can be modified or it can be bypassed. The terms adaptive and alternative are used to make a distinction between these two procedures.

ACCESS DEVICE

Another term that frequently appears is access device. Its meaning is very specific. An access device is a switch. The term "control" is used interchangeably with switch and access device. A simple switch is a mechanism that regulates the flow of power in an electrical circuit. Switches have a wide variety of applications in our environment. The most common access device is the standard light switch.

Access devices are also used to assist people with disabilities. When used in this way, a switch serves as an interface between the person and the device. The switch may be used to control a toy, a lamp, a communication aid or a computer. Because switches are so versatile, they can be used both to modify and to bypass conventional methods of functioning.

COMMUNICATION DEVICE

Devices that help non-vocal people express themselves are called communication aids. These expressive communication aids are designed to meet the specific

continued on page 6

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Name Position or Title

School Address

City, State, Zip Telephone

Type of classroom or program ______

Total number students you serve ______ Number of students using computers ______

Brand(s) of computer(s) ______

Where is (are) the computer(s) located? ______

What software programs do your students use most frequently?

______

What is your evaluation of this issue of the newsletter?

Yes	No		Yes	No	
___	___	Useful	___	___	Looks good
___	___	Interesting	___	___	I like the name
___	___	Too elementary	___	___	Longer articles
___	___	Over my head	___	___	Shorter articles

Would you be willing to contribute information and/or articles for future issues of this newsletter ___ yes ___ no

continued from page 5

needs of individuals. As a result, aids range from simple lap boards to complex computer-based devices that convert Morse Code to artificial speech. Two terms used to define and classify the types of aids used by non-vocal people are augmentative and alternative.

An augmentative communication system is the total functional communication system of an individual, which includes:
1) a communication technique,
2) a symbol set or system,
and 3) communicative interaction behavior. These augmentative communication systems can be divided into two types: unaided and aided. The term unaided refers to all techniques, such as signed communication, which do not use a device, such as a communication board.

How does this definition relate to the earlier discussion of assistive devices? It appears that only an aided communication system can actually be considered an assistive device. Unaided methods are techniques—not devices—for altering conventional methods of functioning.

It has been suggested that the terms augmentative and alternative be used to categorize communication systems. Here a distinction is made based on the three goals of nonspeech communication: 1) a temporary means of communication until spoken communication can be re-established to the point that it becomes adequate: 2) a means for facilitating development (or re-establishment) of spoken communication; and 3) a lifelong means of communication where spoken communication does not become functional.

In this context, the term augmentative is used in situations where spoken communication may be reestablished. In cases where spoken communication does not become functional, the term alternative is more appropriate. This use of the term alternative is consistent with the earlier notion of bypassing conventional methods of executing a function.

SUMMARY

There are many devices and aids to assist disabled people with sensory input, communication, mobility and manipulation. The terms used to define and describe these devices are not always consistent. These definitions reflect the current usage and may prompt further clarification of terms as these devices become more common in special education. ☐

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Computers and Special Ed

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May/June 1988

SPRINGFIELD WORKS TO USE COMPUTERS

Benefits to Students Positive

by Marie Koski

Computers! Great time savers—right? They can cut down your workload—right? WRONG! At least, it is not true in the classroom.

Do you have a principal who is geared for the future? One who wants a computer in every room? Have you been chosen as the test pilot for your building? If the answer to any of these questions is yes, be prepared.

You can have a computer in your classroom, but unless you are willing to put time into it, it will be nothing more than an overpriced video game. You must decide to make a commitment—to your computer and to your students.

The first thing you must do is research available software. It is better to spend months field testing programs than to spend hundreds of dollars on software that does not meet the needs of your students. See if you can borrow software from other school districts, from a regional education office, or a local teaching college. In many cases, you can take 30 to 90 days to try out new software direct from the company.

Make sure the programs you choose complement your classroom instruction. You should also take time to go through the program to see what happens when you give a correct response, when you give an incorrect response, and when a segment is successfully completed.

The next thing you must do is plan for your computer. Each time you introduce a new piece of software, you must take time to explain it to the entire class (and later to each student!). In some cases (for example, SUNBURST) the floppy disk comes with a complete set of lesson plans, including worksheets and transparency masters. USE THEM. Make time in your weekly schedule to follow the plans step by step. Since the software is most likely a supplement to another subject, use that subject's time slot for instructions.

The third, and probably most difficult thing you must do is write out a schedule. You cannot make the computer a free time activity only. The students least likely to finish their work are the ones most likely to benefit from using the computer. You should try to give everyone at least 15 minutes a week (in a regular size class) at the computer. Once scheduled times are out of the way each day, then free time can be a reward for completed work. It is important that you follow the schedule. This not only lets the students know the computer is more than a game, but keeps everything fair!

Now you are ready to let the students use the computer. You should keep one thing in mind: be sure to glance over at the computer regularly—to make sure the student is not having any difficulties.

Does having a computer in your room save time? No, not really. And it certainly requires a great deal of preliminary work! Why would anyone want to go to all the extra work?

I can't answer for others, but in my class I've had students clamor to spend their free time practicing countless addition and subtraction facts, reading and answering questions about stories, and learning about mathematical theories. And these are students who nearly failed in a regular classroom! Is it worth the time and effort? Without a doubt, it is!

Marie Koski is a primary learning center teacher at Samuel Bowles School in Springfield. ☐

INSIDE:

- **THE PAPER MOUNTAIN**
- **PROGRAMMING**
- **SOFTWARE HINTS**

SCALING THE PAPER MOUNTAIN
Reducing the Time Spent on Paper Work.

by Marthanne Pressey

As special educators we are all faced with a mountain of paper work. A tool that has greatly helped me face the many required reports I must write and file, has been AppleWorks.

I had been using another software package for reporting test data and progress reports. And although I was interested in databases and spreadsheets I never had the time to get aquainted with the computer production of them. Finally I took a course on AppleWorks software at a local high school.

The beauty of AppleWorks is the utilization of three tools—word processing, database and spreadsheets under the umbrella of one software program. The commands for all three functions are basically the same so you do not have to memorize a multitude of computer commands.

Learning the AppleWorks program has helped me as a special educator in many ways.

I have made a format for the majority of my testing reports from pre-schooler to 5th graders. This format can be renamed and individualized for each report and student. By doing this I have been able to greatly reduce the amount of time I previously needed to write these various reports. The formats I designed can be used over and over.

The AppleWorks program also makes editing my work easier.

Using the database has helped greatly in monthly reporting, in keeping track of annual reviews, three year re-evaluations and keeping track of my case load. You can include as many categories as necessary, such as name, starting date, date of annual review, and teacher, among other valuable information.

By using the report format you save your reports and add it to the database throughout the year as you add students. Also, from the database you can make labels with information about your students.

Since using AppleWorks, all my monthly reports have been turned in on time.

I have used spreadsheets to organize and visually represent the information gathered from Spring and Fall kindergarten screening. In the Fall we give the Brigance Screening Inventory to all kindergarten students. I enter all the information of each subtest on each student onto a spreadsheet. The students can be sorted from highest to lowest. The scores can be added from each subtest and the average can be computed on each subtest and on the total population average onthe test. This information can provide school norms from the testing. This process of organizing information using spreadsheets has been very beneficial.

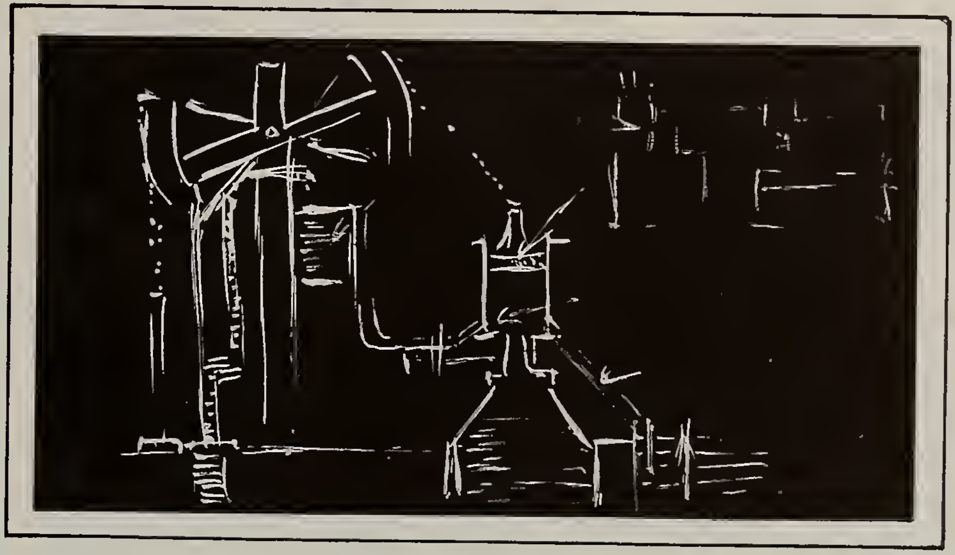
AppleWorks does not reduce the actual amount of paper work I am required to produce, but it has reduced the amount of time needed to complete the paper work.

Learning AppleWorks has had a powerful influence on me as a special educator, by giving me more time to spend with my students.

Marthanne Pressey teaches at the Killam Elementary School in Reading. ☐

PROGRAMMING IN PALMER
Using the Computer as a Chalkboard

by David Whitney



I have an orphan in my class, an ATARI 800. It's tough to find programs for it. The best ones are available for only the Apple or IBM families. But maybe software isn't the way to go. Maybe there's another way. Here are some ideas.

Some software doesn't teach the subjects the way you want them taught. It's difficult to change it. All those wonderful sounds and pictures take tons of time and talent to create, and nearly as much to modify to suit your specific needs.

Consider Procrustes, the legendary Greek robber who welcomed overnight guests and then cut off their legs or stretched their bones to fit his beds. Commercial software is about as accommodating. Remember, these programs are inherently mass-market items. No distant programmer knows your kids, what they need, and how they learn, better than you do.

When I was a kid, I found a slingshot for sale in a gift shop. It was beautiful. The cedar handle said "Mt. Washington, New Hampshire". It cost eight dollars. I remember wondering how many forked branches we must have driven past on the way or how many were in the woods at home. Why spend all kinds of money on fancy flash when I really could do it better and cheaper myself? That goes for software too.

First of all, commercial software can be wonderful. In the right situation, there is nothing like a well-written program to motivate students and to introduce and reinforce concepts. But let's not stop there. There's more to computing than plugging in kids and software and standing back to await the results.

The usual scenario is that the programmer ("teacher") works with the computer and then, much later, the students have their turn. The result is two sets of interactions, one after another. But something is lacking when the teaching is so totally divorced from the learning.

It is entirely possible to bring these separate interactions much closer together, and in many cases to have them even overlap each other. The trick is for classroom teachers to do their own programming. Then the student and the teacher/programmer are

continued on page 4

continued

simultaneously working with the computer and, through it, with each other. Voila! Teaching!

If you get to steam engines in your reading book and no one knows what a steam engine is, what do you do? You grab a piece of chalk and sketch one on the board. Everyone laughs and guesses what it is, and then you explain how it works. It's not the Mona Lisa, but the kids learn something.

When you sketch something on the board, you don't necessarily teach art. You don't have to teach programming to use it.

The whole idea is to use the computer as it was designed and named: to compute, to figure things out. We can use them to TEACH, with commerical software, or we can use them to help us teach. When you do the programming, you can customize the lessons to fit your needs. If they like contests, give them contests. Puzzles? Give them puzzles. It's up to you. You're the teacher!

The list of things you can try is limited only by your imagination. There are simple books about BASIC computer programming in almost every bookstore, or you could try an evening course. These are tools you can use to help your students learn. Just use them! They'll be fun and they'll make your lessons better.

David Whitney is a classroom teacher at the Thorndike Street School in Palmer, MA.

GIVE IT A GO YOURSELF

Most students don't feel they get a big enough allowance. You can use this sentiment to teach the concept of doubling or exponentiation. Ask them if they'd rather get ten dollars a week or get a penny one day, two cents the next, four cents the next, etc. Most students will pick the ten dollars a week. In order to encourage them to affirm their choice, let them run the following program. The answer after 30 days is in the millions of dollars using the penny a day and doubling the sequence. This is also a good time to teach about commas in large numbers since the program will not put them in, so the kids can.

Instructions for Programming

For use on the Apple IIe Computer (The program may need adjustment to use on other computers.)

1. Type this program into your computer EXACTLY as it is written.
2. After you type each line, press the RETURN key.
3. To save the program, make sure you press the RETURN key after the last line then type SAVE and a name for the program.
4. Anytime you want to use the program, put the disk back into the computer and type LOAD, followed by the name you have given the program.

```
10 HOME: PRINT “HOW MUCH MONEY THE FIRST DAY”?: INPUT M
20 PRINT “FOR HOW MANY DAYS?”: INPUT D
30 LET X=((2*M) (D-1))/100:LET Y=(((2*M) D)-1)/100
40 PRINT “ON DAY #” ;D;” YOU WOULD GET $”;X;”.”
50 PRINT “YOU WOULD GET A TOTAL OF $”;Y;”.”: PRINT “TYPE
“RUN” AND PRESS “RETURN” TO TRY AGAIN.
```

SOFTWARE FOR HANDICAPPED PRESCHOOL CHILDREN

Some Hints on Making the Right Selection

The following information has been provided by THE CENTER FOR SPECIAL EDUCATION TECHNOLOGY, 1920 Association Drive, Reston, VA 22091.

Readers are encouraged to write or call the Center at 1-800-345-TECH for more information.

The way in which a microcomputer can be used to assist in the instruction of preschool handicapped children depends largely on the type of software selected.

Since preschool handicapped children may exhibit a combination of characteristics that mildly, moderately, or severely impair their learning, many questions about software need to be addressed.

The questions to ask can be organized into five categories: content, demands placed on the learner, instructional presentation, technical features, and documentation and management features. Specific questions to ask about software for preschool handicapped children include:

Is the program appropriate for the age level?

Is auditory and visual stimulation provided?

Is independent and discovery learning promoted?

Is the program easy to use?

Is the software segmented to accommodate the attention level of the child?

Is positive feedback provided?

Is the program designed to accept a number of errors?

What peripheral devices are needed?

Is speech output available?

Are images, colors, and sound used effectively to catch and hold the child's attention?

These are just some of the questions you can ask when selecting software for preschool handicapped children. You may be able to think of others given your own situation. □

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Name Position or Title

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School Address

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City, State, Zip Telephone

Type of classroom or program ______________

Total number students you serve ________ Number of students using computers ________

Brand(s) of computer(s) ______________

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Yes	No		Yes	No	
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___	___	Interesting	___	___	I like the name
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___	___	Over my head	___	___	Shorter articles

Would you be willing to contribute information and/or articles for future issues of this newsletter ___ yes ___ no

COMPUTER LEARNING MONTH
Bigger and Better in 1988

The results are in on the first Computer Learning Month (CLM), October 1987, and sponsors, participants and the media have heralded the industry-wide public service/public education effort a success.

The tremendous response from all sectors of industry and academia ensure that Computer Learning Month, an official project of the Software Publishers Association (SPA), will become an on-going annual program.

Last year's program involved student and teacher contests, a newsletter, and distribution of a free poster and booklet titled, "Everything You Need To Know (but were afraid to ask your kids) About Computer Learning".

Plans for CLM 1988 are already underway. Sally Bowman, the new CLM Director, will oversee and direct all activities during the upcoming year.

CLM's focus in 1988 will include increasing public awareness of how computers are used as tools at home, work and school; providing programs for schools, universities, community groups and organizations to experience the benefits of technology; stimulating the innovative use of computers; and promoting equal access to computer learning for everyone.

Promotion and communication plans for CLM '88 include national advertising and public relation campaigns. This year's theme is, "Take Part in Computer Learning Month—You'll Love the Relationships That Develop."

The theme reflects the belief that computer learning is not an isolating experience but an interpersonal one that encourages relationships and stimulates learning and personal interaction.

For more information on CLM '88 activities and a free copy of the CLM newsletter write to CLM, P.O.Box 60007, Palo Alto, CA 94306-6007. ☐

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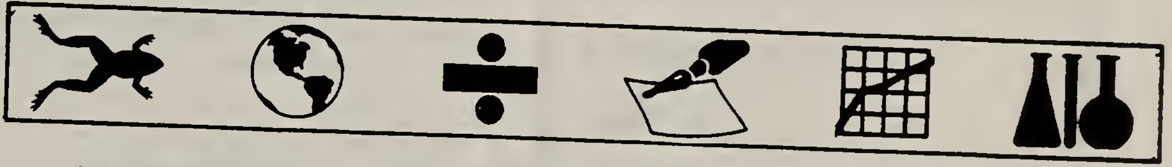
CREATIVE WRITERS IN CHICOPEE

Computers Help Students Create

by Gail B. Fishman



I have a Resource Room with 30 students from grades K-6. All of the students have differing special needs. The one common thread that runs through every student's IEP is reduced language competence. In the beginning, I tried to give the students a picture and have them tell me a story about it to improve language skills. Many of the stories were limited and some students refused to say anything. One of the ways I was able to increase their language ability was through creative writing.

I introduced beginning story writing on the computer. The first program we used was "Writer Rabbit" by The Learning Co. This is a playful and imaginative program that helps students learn early writing and reading skills. There are six carefully sequenced games. The first five games teach and reinforce the skills for sentence construction. The last game allows the student to be creative and use what they have learned to write their own stories.

The "Silly Stories" section allows students to simply fill in the missing parts to a story format. The students can fill in the missing parts of the story with phrases that are provided or create their own. All of the students loved this and even the youngest ones dictated answers for me to type in.

The next disk I introduced was "Kidwriter" by Spinnaker. The children selected colorful pictures and wrote the text to create their own stories. A choice of 99 different characters allowed them to make pictures of almost anything.

This program is as versatile as the child's imagination. It introduces them to the fundamentals of word processing. The older students chose their own pictures and wrote their own stories. The younger ones picked out their own pictures and dictated the stories to me. The length of their stories began to get longer and it was a struggle to get them away from the computer.

The last disk I introduced to the students was "Bank Street Writer Plus" by Broderbund. This is a true word processing program with a spell checker and a thesaurus. The commands are very easy to learn. It can do the most basic stories to the most complicated report.

At first the students would type short stories or poems and then illustrate them.

At our Education Fair the students prepared stories on the weather, demonstrating how they could use the computer. All the students were very enthusiastic about the project.

Students in grades K and 1 used "Kidwriter" to write stories.

Students in Grades 2 and 3 read a book and wrote a book report using "Bank Street Writer." They also made pictures to accompany the report.

Students in Grades 4 through 6 picked a topic, did the research, wrote an outline and rough draft and then typed the final report on the computer using "Bank Street Writer." They also illustrated their reports.

This was the first time any of them had done a project like this. All their work was put on display at the fair and their parents were shown copies.

My experience demonstrates that the use of word processing significantly enhances students' willingness to write and increases their overall language abilities. ☐

Gail B. Fishman is a Special Needs Resource Room Teacher at the Litwin School in Chicopee.

Special Summer Issue, 1988

READING IN READING

Computers and the Developmentally Delayed

by Pamela Chomsky-Higgins

Computers have been used successfully by children with a variety of special needs, including children with physical limitations, learning disabilities, language disorders and emotional problems.

Articles and books describing these success stories abound in the literature. However, it is less often that we see articles dealing with the use of computers by students with developmental disabilities.

I teach such a class and the children I work with have had some wonderful learning experiences using a computer.

My students range in age from ten to thirteen years. They have the language capabilities of four to five year olds and are working at a readiness of the first grade level academically. Their educational program stresses daily living activities, behavioral skills, functional academics, fine and gross motor skills and oral language skills.

For the past two years these students have had access to an Apple IIe computer three to four times a week. After introducing the computer keyboard and monitor to the children I begin with software that presents simple activities with which the children are sure to be successful and which provide motivating reinforcement.

Initially I chose the software for each child and had the program loaded and ready to go by the time the student came to use it. I often began with some of the MECC programs that reinforced counting skills, number and letter identification, sequencing and simple computation.

An early and enduring favorite with most of the children is a memory game, set up like "Concentration" which I am able to personalize for each child by changing the vocabulary words used in the activity.

The children work individually or in pairs on each activity during lesson periods and free time. Some of the children are able to maintain their attention span for longer periods on the computer than on pencil and paper tasks. They learn to work cooperatively on an activity and to compete in an appropriate way with certain games.

The students in my class require frequent review and reinforcement of previously learned skills. The computer is often able to provide this practice in an entertaining and interesting way. Although drill and practice may not be the most beneficial use of a computer with children in a regular classroom, it is most useful in my special needs classroom.

I look for a variety of software to reinforce specific skills. For example, recognizing functional vocabulary words. I am able to select software that has appropriate content and difficulty level. There is a great deal of software being written for students in early childhood education. Much of this material is very appropriate for the students in my class. Peripherals such as the Muppet Keys have also been quite beneficial.

It is important that developmentally delayed students are not shut out of a sophisticated technological society. Computers are appearing not only in the businesses and schools, but also in supermarkets, banks, stores and homes. To be, at the very least, familiar with computers, is an important aspect of being a competent member of our society.

My experience has shown that children with developmental disabilities respond enthusiastically to using the computer and benefit greatly by its use. □

Pamela Chomsky-Higgins is a Special Educator at the Killam Elementary School in Reading.

HEADLINES FROM 1987-1988 ISSUES

Everybody's Got a Story

by Jack Conway

The Bureau of Program Development and Evaluation would like to thank all our contributors for their thoughtful and inspiring contributions during the previous school year.

We were able to reach over 1600 subscribers during the past year and hope to reach even more next year.

We initially thought we had reached all the people interested in using computers as a learning tool for special needs students, but based on the number of people responding to our publication, our mailing list is growing by leaps and bounds.

We would encourage those who have contributed articles in the past to continue to submit and those of you who haven't, to give us a try. We think the *Computers and Special Ed* newsletter is a good way to share your experiences and resources with others.

We further encourage you to pass your copy of the newsletter around to friends and associates, or if you know of someone who should be receiving a copy, please let us know.

If you would like reprints of articles or extra copies, please let us know and we will be glad to send them along.

Once again thank you for all your support and we look forward to hearing from you.

Jack Conway is the Editor of the Computers and Special Ed newsletter.

Special thanks to the following people for their contibutions:

Kerry L. Smith
MONEYBUCKS SUCCEEDS WITH WORD PROCESSING IN HAVERHILL
Innovative Word Processing Methods for Students

Catherine Tarr, Joan McNamara and Vicky Gallagher
LOOKING FOR FUNDS IN ALL THE RIGHT PLACES
State and Local Funding Sources for Computer technology

Donna Haines, Stella Guptill, Linda Nichols and Calista Coady
CHELMSFORD INTEGRATED EFFORT PUTS BYTE INTO NEWS
Parker School Students Produce Newspaper Using Computers

Marilyn Delano and Molly Leonard
TEACHER SURVEY IN METHUEN IDENTIFIES EFFECTIVE USE OF COMPUTERS
Many Effective Computer Uses Identified

Pam Chomsky-Higgins and Karen Quinlan
COMPUTER PROGRAMS FOR YOUR INDIVIDUALIZED EDUCATIONAL PLAN (IEP)
What To Look For and Places to Look

Delores Kricker
REMOVING THE PAPER AND PENCIL BLOCKADE IN CHELMSFORD
Language Skills Improved with Computers

Sheryll Harkins and Jo-Anne Murphy
MARBLEHEAD TEACHERS LOOK AT SOFTWARE
What and How We Teach With Computers

Chris Pike
ESSEX STUDENTS GO ON LEARNING VOYAGE
A Whale of a Multimedia Package

Judy LeFave-Ferrara
IPSWICH AUTHOR APPLE OF TEACHER'S EYE
Student Author Blossoms Using Computers

Molly J.Leonard
METHUEN USES COMPUTER BUILDING BLOCKS
Learning With the Lego Software Program

Verna Charpentier
"CAI" IN DISGUISE IN LEOMINISTER
A Non-fiction Play

AND A VERY SPECIAL THANK YOU TO THE CENTER FOR SPECIAL EDUCATION TECHNOLOGY FOR ALL THE WONDERFUL AND USEFUL INFORMATION WE WERE ALLOWED TO REPRINT. □

COMPUTERS AND PRE-ADOLESCENTS
What the H.E.C.

by Diana Booth Duff

Given a population of 10-12 year-old-students that are functioning on a pre-school through first grade academic level, finding appropriate, stimulating, and challenging software could pose some difficulties.

The computer in my classroom is in operation constantly, from the moment the children arrive in the morning until they are escorted to their bus in the afternoon.

New disks are periodically used,depending on what academic information is being presented and shared in the classroom. After a brief demonstration of basic operating procedures, the students are able to work almost independently.

They are willing to help each other with the games therefore providing positive peer interactions. At times, the students act as role models for each other and share their success and satisfaction.

Reinforcements, either visual or auditory, are also very stimulating. The software accomplishes this through the use of a happy face, a little animal walking across the screen, or sometimes a familiar children's tune.

Even for children unable to read or with limited reading capabilities, computers are an instructional tool. The use of computers can help enhance language development in a student's written work and oral expressive skills. There can be an increase in basic academic skills in addition to successful problem solving and reasoning skills. Grammar, syntax, and vocabulary development have all improved through the use of computer software geared for pre-school through first grade learners. Basic math concepts can also be presented in a manner that is challenging.

Use of computer software from Sunburst, Learning Well, Springboard, and many other companies, have proven to be a beneficial instrument in enhancing, motivating, and stimulating student's language, reading, mathematicl, and socialization skills.

Diana Booth Duff is a Special Needs teachers at the White Brook Middle School in East Hampton.

Computer software for pre-adolescents are produced by many companies. The following are a list of a few.

Mindscape, Inc.
3444 Dundee Road
Northbrook, Il 60062

Springboard Software, Inc.
7808 Creekridge Circle
Minneapolis, MN55435

Sunburst Communications Inc.
39 Washington Ave
Pleasantville, NY 10570

□

HAVE YOU SENT US THIS FORM?

If you are interested in receiving a copy of this newsletter on a regular basis, and have not already returned this form, please fill it out and mail the form to Joan Thormann, Division of Special Education, 1385 Hancock St., Quincy, MA 02169

Name Position or Title

School Address

City, State, Zip Telephone

Type of classroom or program ________________

Total number students you serve ________ Number of students using computers ________

Brand(s) of computer(s) ________________

Where is (are) the computer(s) located? ________________

What software programs do your students use most frequently?

____

What is your evaluation of this issue of the newsletter?

Would you be willing to contribute information and/or articles for future issues of this newsletter ___ yes ___ no

THE SUMMER OF THE READASAURUS

Helping Children To Read During the Summer

Millions of U.S. school children will be expanding their learning opportunities and improving their reading skills during the summer thanks to a new national education project called "Readasaurus."

The program is designed to encourage children to continue reading into the summer with the guidance of a rather unusual mythological dinosaur READASAURUS. The wonderful dinosaur has the capacity to learn to read.

"Children are fascinated with dinosaurs," said Sam Save, Executive Director of the National Association of Elementary School Principals. "We want to encourage children on the idea of summer reading, building on their basic skills between school years. A dinosaur who reads is a great idea for getting children's attention."

The Readasaurus awareness campaign has made its way across the continental U.S. criss-crossing 21 cities and urging teachers, parents and reading advocates to promote summer-long reading by children.

A recent Ford Foundation report states that 80 percent of the difference between advantaged and disadvantaged children in year-to-year reading skills loss occurs over the summer.

Children also have the opportunity to win some fabulous prizes by participating in the summer reading program. The top prize is an IBM computer.

The program is a partnership of educators, parents, librarians, reading advocates, and the media to curb the loss of learning that for many children is a critical factor in their long-term performance and sponsored by IBM's "Writing to Read."

For more information contact:
Readasaurus
The National Zoo
Washington, DC 20299-0001

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Jack Conway, Editor

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